

# Package ‘tidyUSDA’

June 30, 2020

**Type** Package

**Title** A Minimal Tool Set for Gathering USDA Quick Stat Data for Analysis and Visualization

**Version** 0.2.8

**Description** Provides a consistent API to pull United States Department of Agriculture census and survey data from the National Agricultural Statistics Service (NASS) QuickStats service <<https://quickstats.nass.usda.gov>>.

**License** MIT + file LICENSE

**URL** <https://bradlindblad.github.io/tidyUSDA>,  
<https://github.com/bradlindblad/tidyUSDA>

**Depends** R (>= 3.6)

**Imports** crayon, curl, dplyr, fuzzyjoin, ggplot2, jsonlite, keyring, magrittr, nlme, rgdal, sf, stringi, tigris, usethis

**Suggests** covr, knitr, rgeos, rmarkdown, spelling, testthat (>= 2.1.0)

**VignetteBuilder** knitr

**Encoding** UTF-8

**Language** en-US

**LazyData** true

**RoxygenNote** 7.1.1

**NeedsCompilation** no

**Author** Brad Lindblad [aut, cre],  
Michael Thomas [ctb],  
Alex Mindeman [ctb]

**Maintainer** Brad Lindblad <[bradley.lindblad@gmail.com](mailto:bradley.lindblad@gmail.com)>

**Repository** CRAN

**Date/Publication** 2020-06-30 20:20:03 UTC

**R topics documented:**

allCategory . . . . .	2
allCommodity . . . . .	3
allCounty . . . . .	3
allDataItem . . . . .	4
allDomain . . . . .	4
allGeogLevel . . . . .	5
allGroup . . . . .	5
allProgram . . . . .	6
allSector . . . . .	6
allState . . . . .	7
getQuickstat . . . . .	7
plotUSDA . . . . .	9
tidyUSDA . . . . .	9

<b>Index</b>	<b>10</b>
--------------	-----------

---

allCategory	<i>All possible values from the CATEGORY field.</i>
-------------	---

---

**Description**

All possible values from the CATEGORY field.

**Usage**

```
allCategory
```

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

allCommodity	<i>All possible values from the COMMODITY field.</i>
--------------	--

---

**Description**

All possible values from the COMMODITY field.

**Usage**

allCommodity

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

allCounty	<i>All possible values from the COUNTY field.</i>
-----------	---

---

**Description**

All possible values from the COUNTY field.

**Usage**

allCounty

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

allDataItem	<i>All possible values from the DATA ITEM field.</i>
-------------	--

---

**Description**

All possible values from the DATA ITEM field.

**Usage**

allDataItem

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

allDomain	<i>All possible values from the DOMAIN field.</i>
-----------	---

---

**Description**

All possible values from the DOMAIN field.

**Usage**

allDomain

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

<code>allGeogLevel</code>	<i>All possible values from the GEOGRAPHY LEVEL field.</i>
---------------------------	--

---

**Description**

All possible values from the GEOGRAPHY LEVEL field.

**Usage**

`allGeogLevel`

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

<code>allGroup</code>	<i>All possible values from the GROUP field.</i>
-----------------------	--

---

**Description**

All possible values from the GROUP field.

**Usage**

`allGroup`

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

allProgram	<i>All possible values from the PROGRAM field.</i>
------------	--

---

**Description**

All possible values from the PROGRAM field.

**Usage**

allProgram

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

allSector	<i>All possible values from the SECTOR field.</i>
-----------	---

---

**Description**

All possible values from the SECTOR field.

**Usage**

allSector

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

allState	<i>All possible values from the STATE field.</i>
----------	--

---

**Description**

All possible values from the STATE field.

**Usage**

```
allState
```

**Format**

A vector with 1 variable

**Source**

<https://quickstats.nass.usda.gov>

---

getQuickstat	<i>getQuickstat</i>
--------------	---------------------

---

**Description**

Get values from USDA Quick Stats in a dataframe with optional sf (simple features) geometry field

**Usage**

```
getQuickstat(  
  key = NULL,  
  program = NULL,  
  data_item = NULL,  
  sector = NULL,  
  group = NULL,  
  commodity = NULL,  
  category = NULL,  
  domain = NULL,  
  geographic_level = NULL,  
  state = NULL,  
  county = NULL,  
  year = NULL,  
  geometry = FALSE,  
  lower48 = FALSE,  
  weighted_by_area = FALSE  
)
```

**Arguments**

key	your USDA api key. Get one at <a href="https://quickstats.nass.usda.gov/api">https://quickstats.nass.usda.gov/api</a> - string
program	program field - string
data_item	data_item field - string
sector	sector field - string
group	group field - string
commodity	commodity field - string
category	category field - string
domain	domain field - string
geographic_level	geographic_level field - string
state	state field - either a string or character vector with multiple states
county	county field - either a string or character vector with multiple states
year	year field - string
geometry	geometry field (TRUE or FALSE), set to TRUE if you would like a simple features (SF) geometry field included. Only works when geographic_level is set to 'COUNTY' or 'STATE'
lower48	limit data to the lower 48 states? - TRUE or FALSE
weighted_by_area	option to mutate a new column that takes the target ('Value') and divides it by the square miles in that state or county; only works when GEOMETRY = TRUE - TRUE or FALSE

**Note**

Go to the webpage <https://quickstats.nass.usda.gov/>. As a best practice, select the items in these fields and test that that data item exists in the browser before using those parameters in this function. When you have a dataset that works, enter those values in the function as parameters. Ideally, only enter values for your key obviously, then PROGRAM, DATA\_ITEM, GEOGRAPHIC\_LEVEL and then if necessary, DOMAIN, STATE, COUNTY or YEAR.

**Examples**

```
## Not run:
getQuickstat(
  key = 'your_key',
  program = 'CENSUS',
  data_item = 'CROP TOTALS - OPERATIONS WITH SALES',
  geographic_level = 'COUNTY',
  domain = 'TOTAL',
  year = '2017',
  state = NULL,
  geometry = T,
  lower48 = T)

## End(Not run)
```



---

plotUSDA

*plotUSDA*

---

### Description

Quickly plot a data frame produced by the getQuickstat() function.

### Usage

```
plotUSDA(df, fill_by = "Value")
```

### Arguments

df                    a data frame with a simple feature column (geometry)  
fill\_by                the value you would like to fill your choropleth output

### Examples

```
## Not run:  
# Use output from getQuickstat()  
plotUSDA(df = df_from_getQuickstat)  
  
## End(Not run)
```

---

tidyUSDA

*tidyUSDA: An Interface to USDA QuickStats Data with Mapping Capabilities.*

---

### Description

A minimal toolset for gathering USDA Quick Stat data for analysis and visualization.

### Author(s)

**Maintainer:** Brad Lindblad <bradley.lindblad@gmail.com>

Other contributors:

- Michael Thomas <mthomas@ketchbrookanalytics.com> [contributor]
- Alex Mindeman <alexandramindeman@gmail.com> [contributor]

### See Also

Useful links:

- <https://bradlindblad.github.io/tidyUSDA>
- <https://github.com/bradlindblad/tidyUSDA>

# Index

## \* datasets

- allCategory, 2
- allCommodity, 3
- allCounty, 3
- allDataItem, 4
- allDomain, 4
- allGeogLevel, 5
- allGroup, 5
- allProgram, 6
- allSector, 6
- allState, 7

- allCategory, 2
- allCommodity, 3
- allCounty, 3
- allDataItem, 4
- allDomain, 4
- allGeogLevel, 5
- allGroup, 5
- allProgram, 6
- allSector, 6
- allState, 7

- getQuickstat, 7

- plotUSDA, 9

- tidyUSDA, 9

- tidyUSDA-package (tidyUSDA), 9